FEI CM30T TEM

Instrument capabilities:

1. Instrument specifications:
   a) Accelerating voltages: 100–300 kV
   b) LaB_6 emitter
   c) Resolution (at 300 kV): ~ 0.25 nm point; ~ 0.14 nm line
   d) Minimum probe size: ~ 9 nm
2. Operating modes: CTEM, CBED, SAED, light element XEDS, PEELS, 1 Mpixel CCD camera (either 15 frames/second or slower single-image capture).
3. Specimen holders:
   a) Double Tilt (±60˚ α, ±30˚ β):
      - with Be cup for XEDS
      - liquid N_2 cooled (96 K) with Be cup
      - heating (1270 K)
   b) Tilt/rotate (±60˚, rotation 360˚)
   c) Single Tilt (±60˚)

Typical experiments (examples):

- Quantitative XEDS
- Morphological and diffraction contrast studies of defects
- In situ heating & cooling studies
- Electron crystallography
- Weak beam studies of defects